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## MEMORANDUM

DATE: August 9, 1991

TO: Neil Thompson, HWD-PO, USEPA, Region 10  
THRU: Alexander Whitman, Program Manager, E & E, Seattle *Act*  
FROM: David A. Ikeda, Chemist, E & E, Seattle *DI*  
Lila Transue, Senior Chemist, E & E, Seattle *JY*  
SUBJ: QA of Case 15614 (Organics)  
Colbert Landfill  
REF: Contract Number 68-09-0020  
Work Assignment Number 20-05-OP15  
CC: Barry Towns, Quality Assurance Officer, USEPA, Region 10  
Carolyn Wilson, RSCC, USEPA, Region 10  
Gerald Muth, CLP-TPO, USEPA, Region 10 Laboratory, Manchester  
Lyle Diediker, Project Manager, E & E, Seattle

This memorandum replaces the previous Quality Assurance (QA) memorandum for Case 15614 (Samples JG254, JG255, JG257, JG258, JG566, JG567, JG570, JG571, and JG572). In the original memorandum, dated May 23, 1991, the reported value for methoxychlor in sample JG257 was corrected by the reviewer from 0.050 U µg/L to 0.051 µg/L. The laboratory responded to the questions/issues raised by the reviewer on June 10, 1991 (following distribution of the original QA memorandum), and resubmitted a revised Form I for sample JG257 with methoxychlor reported at 0.051 J µg/L. The revised Form I submitted by the laboratory for sample JG257 is included with this memorandum.

The Quality Assurance (QA) review of nine samples, Case 15614, collected from Colbert Landfill, has been completed. Four water samples were analyzed at low level for Target Compound List (TCL) organics and five water samples were analyzed at low level for TCL volatile organic compounds (VOCs) only by Mid-Pacific Environmental Laboratories of Mountain View, California. The samples were numbered:

JG254	JG258	JG570 (VOCs only)
JG255	JG566 (VOCs only)	JG571 (VOCs only)
JG257	JG567 (VOCs only)	JG572 (VOCs only)

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Pesticide/polychlorinated biphenyl (PCB) and semivolatile matrix spike (MS) and matrix spike duplicate (MSD) analyses were not performed for this Sample Delivery Group (SDG). Sample JG566 underwent VOC MS and MSD analysis.

Data Qualifications

The laboratory analyzed samples based on the new Statement of Work (SOW) OLM01.0 dated March 1990. However, since the pesticide/PCB section of the new SOW is currently under revision, the pesticide/PCB analyses were reviewed based on the criteria outlined in the previous SOW (dated February 1988).

The following comments refer to the laboratory performance in meeting the Quality Control (QC) specifications outlined in SOW OLM01.0 (March 1990) for VOCs and semivolatiles, and IFBWA-87K236-238 for pesticides/PCBs, following Laboratory Data Validation Functional Guidelines for Evaluating Organics Analysis (February 1, 1988).

1) Timeliness

Sample Number	Sample Date	Rec'd Date	VOC Anal.	BNA Extr.	BNA Anal.	Pest/PCB Extr.	Pest/PCB Anal.
JG254	12/18/90	12/20/90	12/27/90	12/21/90	01/07/91	12/21/90	01/08/91
JG255	12/18/90	12/20/90	12/27/90	12/21/90	01/07/91	12/21/90	01/08/91
JG257	12/18/90	12/20/90	12/27/90	12/21/90	01/07/91	12/21/90	01/08/91
JG258	12/18/90	12/20/90	12/27/90	12/21/90	01/07/91	12/21/90	01/08/91
JG566	12/18/90	12/20/90	12/27/90	N/R	N/R	N/R	N/R
JG567	12/18/90	12/20/90	12/27/90	N/R	N/R	N/R	N/R
JG570	12/18/90	12/20/90	12/27/90	N/R	N/R	N/R	N/R
JG571	12/18/90	12/20/90	12/27/90	N/R	N/R	N/R	N/R
JG572	12/18/90	12/20/90	12/27/90	N/R	N/R	N/R	N/R

VOC - Volatile Organic Compounds

BNA - Base, Neutral, and Acid Semivolatile Compounds

Pest/PCB - Pesticide/Polychlorinated Biphenyl Compounds

Anal. - Analysis Date

Extr. - Extraction Date

N/R - Analyses not requested.

All samples met holding time criteria for volatiles, semivolatiles, and pesticides/PCBs.

2) Instrument Tuning

All tuning check compound mass abundances and ratios were within contract-required limits for volatile and semivolatile analysis.

3) Initial Calibration

All volatile and semivolatile target compounds were within contract-required limits for the initial calibration with average Relative Response Factors (RRFs) above levels specified in SOW OLM01.0 for volatiles and semivolatiles. All volatiles and semivolatile target compounds were within contract-required limits for the initial calibration with Percent Relative Standard Deviations (%RSDs) below 30 percent, except:

Date	Fraction	Compound	%RSD	Associated Samples
11/15/90	BNA	4-Chloroaniline	44.2	*
		3-Nitroaniline	32.2	*

\* JG254, JG255, JG257, JG258

For samples associated with the corresponding calibration and TCL compounds listed above, positive results and sample quantitation limits were flagged as estimated quantities ( $J_4$  or  $UJ_4$ ), as a high %RSD is indicative of poor system linearity.

4) Continuing Calibrations

All volatile and semivolatile target compounds were at or above the contract-required continuing calibration Relative Response Factor (RRF[50]) criteria specified in SOW OLM01.0 for volatiles and semi-volatiles.

All volatile and semivolatile target compounds that were detected in the samples had percent difference (%D) values for the continuing calibration of less than or equal to 25 percent.

5) Blanks

Frequency criteria were met for laboratory blank analysis.

The following compounds were detected in laboratory blanks at levels above Instrument Detection Limits (IDL), but below Contract Required Quantitation Limits (CRQL) for TCL compounds:

Blank ID	Fraction	Compound	Matrix	Conc. µg/L	CRQL µg/L	Associated Samples
SBLK 1	BNA	N-Nitrosodiphenyl- amine	Water	0.8	10	*

Conc. - Concentration

\* JG254, JG255, JG257, JG258

Reported levels of the above compounds in the samples were flagged "UJ<sub>1</sub>" (estimated quantitation limit) if the concentrations were below five times the concentrations found in the appropriate blank (10 times for common solvents).

No Tentatively Identified Compounds (TICs) were identified in the laboratory blanks.

6) Pesticide Standards

a) Linearity

The evaluation standards were within the contract-required limits for the initial calibration with percent relative standard deviations (RSDs) below 10 percent, except:

Date	Compound	%RSD	QC Limit	Associated Sample
01/24/91	Endrin	15.0	10%	JG257
	4,4'-DDT	13.2	10%	JG257

Quantitation limits for the above compounds were flagged as estimated (UJ<sub>4</sub>) in sample JG257.

b) DDT Retention Time

The retention time for DDT on the primary and secondary GC column met or exceeded 12 minutes for the standard runs.

c) Retention Time Windows

The retention time windows met the contract specifications.

d) Analytical Sequence

The analytical sequence met the contract-required frequency and order.

e) 4,4'-DDT/Endrin Degradation

The percent breakdown for Endrin and DDT met the contract limit of 20 percent for the individual or combined breakdown totals.

f) Surrogate Retention Time Shift

The Percent Difference calculated for the retention time of surrogate compounds did not exceed 2 percent for the packed column.

g) Standards Summary

All compounds that were detected in the samples had percent difference (%D) values for the continuing calibration of less than or equal to 15 percent.

7) Surrogate Recovery

Recoveries (%R) for all surrogate compounds for volatile, semi-volatile, and pesticide/PCB analyses met QC criteria, except:

Sample Number	Compound	%R	QC Limits
JG254	Tetrachloro-m-xylene	52	60 - 150
JG255	Tetrachloro-m-xylene	53	60 - 150
JG257	Decachlorobiphenyl	169	60 - 150
JG258	Tetrachloro-m-xylene	48	60 - 150

No action was taken based on the pesticide/PCB surrogate outliers.

All volatile and semivolatile surrogate analysis met contract specifications.

All surrogate compounds met calibration QC criteria.

8) Matrix Spike and Matrix Spike Duplicate

All volatile MS and MSD percent recoveries (%Rs) met advisory QC guidelines. No MS or MSD analyses were performed for the semivolatile and pesticides/PCB fractions for this case. No action was taken.

9) Internal Standard Recovery

All internal standard areas were within established QC limits.

10) Sample Analysis

All reported results above IDLs but below CRQLs were flagged as estimated quantities (J) on the Data Sheets.

Sample JG257 was reanalyzed for pesticides/PCBs because of poor recoveries for both surrogate compounds. The reanalysis was within established regional holding time criteria with only one surrogate outside advisory QC limits. The second pesticide/PCB analysis for sample JG257 was reported with this memorandum.

Methoxychlor results for sample JG255 were flagged as tentatively identified (NJ<sub>4</sub>), as the calculated concentration of methoxychlor for the quantitation and confirmation columns exceeded QC criteria of less than or equal to 25 percent difference.

11) Laboratory Contact

The laboratory was contacted on March 14, 1991 (see attached Telephone Record Log).

Data Use

The usefulness of the data is based on the criteria outlined in the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (February 1, 1988); the Data Qualifier Definitions supplied by the Office of Solid Waste and Emergency Response (September 1989); and the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989).

Data Qualifiers

U - The material was analyzed for, but was not detected. The associated numerical value is a contractual quantitation limit, adjusted for sample weight/sample volume, extraction volume, percent solids and sample dilution.

J - The analyte was analyzed for and was positively identified, but the associated numerical value may not be consistent with the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.

UJ - The material was analyzed for, but was not detected. The associated numerical value is an estimated/adjusted quantitation limit. The associated numerical value may not accurately or precisely represent the concentration necessary to detect the analyte in this sample.

A subscript will be appended to the "J" qualifier or the "UJ" qualifier that indicates which of the following quality control criteria were not met:

1. Blank contamination: indicates possible high bias and/or false positives.
2. Calibration range exceeded: indicates possible low bias.
3. Holding times not met: indicates low bias for most analytes with the exception of common laboratory contaminants and chlorinated ethenes (i.e., trichloroethene, 1,1-dichloroethene, and vinyl chloride).
4. Other QC outside control limits: bias not readily determined.

These subscripts will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result, the result will be flagged "J" without subscript. In the case where the analytical result is greater than the IDL but less than the CRQL the result will be flagged "J" without subscript.

R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.

N - Presumptive evidence of presence of material (tentative identification). Confirmation of the analyte requires further analysis.

NJ - The analysis indicates that the analyte is tentatively identified and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

A subscript will be appended to the "NJ" qualifier that indicates which of the following situations applies:

1. DDT/Endrin breakdown evident.
2. Interference by other sample components.

3. Non-Target Compound List (TCL) compounds (confirmation is necessary using specific target compound methodology to accurately determine the concentration and identity of the detected compounds).
4. A confirmation analysis was missing or quality control criteria were not met for the confirmation analysis.

These subscripts will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result, the result will be flagged "J" without subscript.

- M - Mass spectral criteria for positive identification were not met. However, in the opinion of the laboratory, the identification is correct based on the analyst's professional judgement.
- X - The reported result may be a combination of indistinguishable isomers.

DI:gam

In Reference to Case No(s):  
15614

Contract Laboratory Program  
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 25 MARCH 1991

Laboratory Name: MIDPACIFIC ENVIRONMENTAL LABORATORIES

Lab Contact: SHAILESH MAINGI / CLAIRE FERGUSON

Region: 10

Regional Contact: DAVID AICIO IKEDA

Call Initiated By: Laboratory  Region

In Reference to data for the following sample number(s):

SAMPLES JG 254, JG 255, JG 257, AND JG 258 (PEST /PCBs)

Summary of Questions/Issues Discussed:

1. VERIFY SAMPLE RESULTS FOR METHOXYCLOR IN SAMPLE JG 257. FORM I = 0.05044, / CALCULATED 0.05148.

Summary of Resolution:

1. THE LABORATORY DID NOT RESPOND TO THE ISSUE /QUESTION IN A TIMELY FASHION, EVEN AFTER BEING CONTACTED ABOUT TEN TIMES. METHOXYCLOR RESULTS IN SAMPLE JG 257 WAS CORRECTED ON THE FORM I BY THE READER.

David A Ikeda  
Signature

10 JUNE 1991

Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) S:10 Copy

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00000014

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: MIDPAC ENV LABContract: 68-D0-0157JG254Lab Code: MPELI Case No.: 15614SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-01Sample wt/vol: 5.0 (g/mL) MLLab File ID: IW1215201CALevel: (low/med) LOWDate Received: 12/20/90

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm)Dilution Factor: 25

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3-----	Chloromethane	250	U
74-83-9-----	Bromomethane	250	U
75-01-4-----	Vinyl Chloride	250	U
75-00-3-----	Chloroethane	250	U
75-09-2-----	Methylene Chloride	3000	
67-64-1-----	Acetone	250	U
75-15-0-----	Carbon Disulfide	250	U
75-35-4-----	1,1-Dichloroethene	340	
75-35-3-----	1,1-Dichloroethane	91	J
540-59-0-----	1,2-Dichloroethene (total)	250	U
67-66-3-----	Chloroform	250	U
107-06-2-----	1,2-Dichloroethane	250	U
78-93-3-----	2-Butanone	250	U
71-55-6-----	1,1,1-Trichloroethane	2500	
56-23-5-----	Carbon Tetrachloride	250	U
75-27-4-----	Bromodichloromethane	250	U
78-87-5-----	1,2-Dichloropropane	250	U
10061-01-5-----	cis-1,3-Dichloropropene	250	U
79-01-6-----	Trichloroethene	140	J
124-48-1-----	Dibromochloromethane	250	U
79-00-5-----	1,1,2-Trichloroethane	250	U
71-43-2-----	Benzene	250	U
10061-02-6-----	trans-1,3-Dichloropropene	250	U
75-25-2-----	Bromoform	250	U
108-10-1-----	4-Methyl-2-Pentanone	250	U
591-78-6-----	2-Hexanone	250	U
127-18-4-----	Tetrachloroethene	250	U
79-34-5-----	1,1,2,2-Tetrachloroethane	250	U
108-88-3-----	Toluene	250	U
108-90-7-----	Chlorobenzene	250	U
100-41-4-----	Ethylbenzene	250	U
100-42-5-----	Styrene	250	U
1330-20-7-----	Xylene (total)	250	U

00000015

EPA SAMPLE NO.

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: MIDPAC ENV LABContract: 68-D0-0157JG254Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATER Lab Sample ID: 9012152-01Sample wt/vol: 5.0 (g/mL) ML Lab File ID: IW1215201CALevel: (low/med) LOW Date Received: 12/20/90% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm) Dilution Factor: 25

Soil Extract Volume: \_\_\_\_\_ (ul) Soil Aliquot Volume: \_\_\_\_\_ (ul)

Number TICs found: 0CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

00000182

EPA SAMPLE NO.

1B

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JG254

Lab Name: MIDPAC ENV LABContract: 68-D0-0157Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-01Sample wt/vol: 1000 (g/mL) MLLab File ID: EL1215201CLevel: (low/med) LOWDate Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90Concentrated Extract Volume: 1000 (ul)Date Analyzed: 01/07/91Injection Volume: 2.0(ul)Dilution Factor: 1.0GPC Cleanup: (Y/N) N pH: \_\_\_\_\_CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	Q
108-95-2-----	Phenol	10 U
111-44-4-----	bis(2-Chloroethyl) Ether	10 U
95-57-8-----	2-Chlorophenol	10 U
541-73-1-----	1,3-Dichlorobenzene	10 U
106-46-7-----	1,4-Dichlorobenzene	10 U
95-50-1-----	1,2-Dichlorobenzene	10 U
95-48-7-----	2-Methylphenol	10 U
108-60-1-----	2,2'oxybis(1-Chloropropane)	10 U
106-44-5-----	4-Methylphenol	10 U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10 U
67-72-1-----	Hexachloroethane	10 U
98-95-3-----	Nitrobenzene	10 U
78-59-1-----	Isophorone	10 U
88-75-5-----	2-Nitrophenol	10 U
105-67-9-----	2,4-Dimethylphenol	10 U
111-91-1-----	bis(2-Chloroethoxy)Methane	10 U
120-83-2-----	2,4-Dichlorophenol	10 U
120-82-1-----	1,2,4-Trichlorobenzene	10 U
91-20-3-----	Naphthalene	10 U
106-47-8-----	4-Chloroaniline	10 UJ4
87-68-3-----	Hexachlorobutadiene	10 U
59-50-7-----	4-Chloro-3-Methylphenol	10 U
91-57-6-----	2-Methylnaphthalene	10 U
77-47-4-----	Hexachlorocyclopentadiene	10 U
88-06-2-----	2,4,6-Trichlorophenol	10 U
95-95-4-----	2,4,5-Trichlorophenol	50 U
91-58-7-----	2-Chloronaphthalene	10 U
88-74-4-----	2-Nitroaniline	50 U
131-11-3-----	Dimethyl Phthalate	10 U
208-96-8-----	Acenaphthylene	10 U
606-20-2-----	2,6-Dinitrotoluene	10 U
99-09-2-----	3-Nitroaniline	50 UJ4
83-32-9-----	Acenaphthene	10 U

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00000183  
EPA SAMPLE NO.

1C

## SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG254

Lab Code: MPELI Case No.: 15614 SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-01

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215201C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0(ul)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	50	U	
100-02-7-----	4-Nitrophenol	50	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	50	U	
534-52-1-----	4,6-Dinitro-2-Methylphenol	50	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	1	UG,	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	50	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	0.4	J	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	10	U	
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b) Fluoranthene	10	U	
207-08-9-----	Benzo(k) Fluoranthene	10	U	
50-32-8-----	Benzo(a) Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd) Pyrene	10	U	
53-70-3-----	Dibenz(a,h) Anthracene	10	U	
191-24-2-----	Benzo(g,h,i) Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

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00000184

EPA SAMPLE NO.

1F

SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG254

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI Case No.: 15614 SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-01

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215201C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: decanted: (Y/N)

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0 (ul)

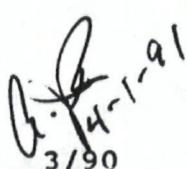
Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 7

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 74381-40-1	PROPANOIC ACID, 2-METHYL-, 1	14.82	9.0	JN
2. 17851-53-5	1,2-BENZENEDICARBOXYLIC ACID	16.72	4.0	JN
3. 57-10-3	HEXADECANOIC ACID	17.17	3.0	JN
4.	UNKNOWN	17.60	2.0	JN
5.	UNKNOWN	19.87	3.0	JN
6. 36653-82-4	1-HEXADECANOL	20.55	4.0	JN
7.	UNKNOWN	24.19	6.0	JN


  
3/90

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET00000799  
EPA SAMPLE NO.Lab Name: MIDPAC ENV LABContract: 68-D0-0157JG254Lab Code: MPELI Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: JG254Sample wt/vol: 1000 (g/mL) ML

Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N)       Date Received: 12/19/90Extraction: (SepF/Cont/Sonc) CONTDate Extracted: 12/21/90Concentrated Extract Volume: 10000 (uL)Date Analyzed: 01/08/91Injection Volume: 2.00 (uL)Dilution Factor: 1.00HPC Cleanup: (Y/N) N pH: \_\_\_\_\_Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.050	U
53494-70-5-----	Endrin ketone	0.10	U
7421-36-3-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.50	U
5103-74-2-----	gamma-Chlordane	0.50	U
8001-35-2-----	Toxaphene	0.10	U
12674-11-2-----	Aroclor-1016	0.050	U
11104-28-2-----	Aroclor-1221	0.050	U
11141-16-5-----	Aroclor-1232	0.050	U
53469-21-9-----	Aroclor-1242	0.050	U
12672-29-6-----	Aroclor-1248	0.050	U
11097-69-1-----	Aroclor-1254	0.10	U
11096-82-5-----	Aroclor-1260	0.10	U

00000029

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: MIDPAC ENV LABContract: 68-D0-0157JG255Lab Code: MPELICase No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-02Sample wt/vol: 5.0 (g/mL) MLLab File ID: IW1215202CALevel: (low/med) LOWDate Received: 12/20/90

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm)Dilution Factor: 25

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3-----	Chloromethane	250	U
74-83-9-----	Bromomethane	250	U
75-01-4-----	Vinyl Chloride	250	U
75-00-3-----	Chloroethane	250	U
75-09-2-----	Methylene Chloride	3200	
67-64-1-----	Acetone	250	U
75-15-0-----	Carbon Disulfide	250	U
75-35-4-----	1,1-Dichloroethene	360	
75-35-3-----	1,1-Dichloroethane	94	J
540-59-0-----	1,2-Dichloroethene (total)	250	U
67-66-3-----	Chloroform	250	U
107-06-2-----	1,2-Dichloroethane	250	U
78-93-3-----	2-Butanone	250	U
71-55-6-----	1,1,1-Trichloroethane	2500	
56-23-5-----	Carbon Tetrachloride	250	U
75-27-4-----	Bromodichloromethane	250	U
78-87-5-----	1,2-Dichloropropane	250	U
10061-01-5-----	cis-1,3-Dichloropropene	250	U
79-01-6-----	Trichloroethene	130	J
124-48-1-----	Dibromochloromethane	250	U
79-00-5-----	1,1,2-Trichloroethane	250	U
71-43-2-----	Benzene	250	U
10061-02-6-----	trans-1,3-Dichloropropene	250	U
75-25-2-----	Bromoform	250	U
108-10-1-----	4-Methyl-2-Pentanone	250	U
591-78-6-----	2-Hexanone	250	U
127-18-4-----	Tetrachloroethene	250	U
79-34-5-----	1,1,2,2-Tetrachloroethane	250	U
108-88-3-----	Toluene	250	U
108-90-7-----	Chlorobenzene	250	U
100-41-4-----	Ethylbenzene	250	U
100-42-5-----	Styrene	250	U
1330-20-7-----	Xylene (total)	250	U

recycled paper

ecology and environment

00000030

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG255

Lab Name: MIDPAC ENV LABContract: 68-D0-0157Lab Code: MPELICase No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-02Sample wt/vol: 5.0 (g/mL) MLLab File ID: IW1215202CALevel: (low/med) LOWDate Received: 12/20/90

Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm)Dilution Factor: 25

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

Number TICs found: 0CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

00000268

EPA SAMPLE NO.

1B

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JG255

Lab Name: MIDPAC ENV LAB Contract: 68-D0-0157

Lab Code: MPELI Case No.: 15614 SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER Lab Sample ID: 9012152-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: EL1215202C

Level: (low/med) LOW Date Received: 12/20/90

% Moisture: decanted: (Y/N) Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 01/07/91

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl) Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	UJ4
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	50	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	50	U
131-11-3-----	Dimethyl Phthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	50	UJ4
83-32-9 <small>recycled paper</small> -----	Acenaphthene	10	U

ecology and environment

00000209

EPA SAMPLE NO.

1C

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JG255

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-02

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215202C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0 (ul)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND			
51-28-5-----	2,4-Dinitrophenol	50	U	
100-02-7-----	4-Nitrophenol	50	U	
132-64-9-----	Dibenzofuran	10	U	
121-14-2-----	2,4-Dinitrotoluene	10	U	
84-66-2-----	Diethylphthalate	10	U	
7005-72-3-----	4-Chlorophenyl-phenylether	10	U	
86-73-7-----	Fluorene	10	U	
100-01-6-----	4-Nitroaniline	50	U	
534-52-1-----	4,6-Dinitro-2-Methylphenol	50	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	1	UG,	
101-55-3-----	4-Bromophenyl-phenylether	10	U	
118-74-1-----	Hexachlorobenzene	10	U	
87-86-5-----	Pentachlorophenol	50	U	
85-01-8-----	Phenanthrene	10	U	
120-12-7-----	Anthracene	10	U	
86-74-8-----	Carbazole	10	U	
84-74-2-----	Di-n-Butylphthalate	0.4	J	
206-44-0-----	Fluoranthene	10	U	
129-00-0-----	Pyrene	10	U	
85-68-7-----	Butylbenzylphthalate	10	U	
91-94-1-----	3,3'-Dichlorobenzidine	10	U	
56-55-3-----	Benzo(a)Anthracene	10	U	
218-01-9-----	Chrysene	10	U	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	47		
117-84-0-----	Di-n-Octyl Phthalate	10	U	
205-99-2-----	Benzo(b)Fluoranthene	10	U	
207-08-9-----	Benzo(k)Fluoranthene	10	U	
50-32-8-----	Benzo(a)Pyrene	10	U	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U	
53-70-3-----	Dibenz(a,h)Anthracene	10	U	
191-24-2-----	Benzo(g,h,i)Perylene	10	U	

(1) - Cannot be separated from Diphenylamine

ecology and environment

J00000210

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG255

Lab Name: MIDPAC ENV LABContract: 68-D0-0157Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-02Sample wt/vol: 1000 (g/mL) MLLab File ID: EL1215202CLevel: (low/med) LOWDate Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90Concentrated Extract Volume: 1000 (ul)Date Analyzed: 01/07/91Injection Volume: 2.0(ul)Dilution Factor: 1.0GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Number TICs found: 6CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 74672-05-2	PROPANOIC ACID, 2-METHYL-, 1	14.82	10	JN
2. 17851-53-5	1,2-BENZENEDICARBOXYLIC ACID	16.72	3.0	JN
3. 57-10-3	HEXADECANOIC ACID	17.17	2.0	JN
4.	UNKNOWN	17.60	2.0	JN
5.	UNKNOWN	20.54	3.0	JN
6.	UNKNOWN	24.17	6.0	JN


 A handwritten signature in black ink, appearing to read "R. J. J. 1/90".

00000804

EPA SAMPLE NO.

1D

## PESTICIDE ORGANICS ANALYSIS DATA SHEET

ab Name: MIDPAC ENV LABContract: 68-D0-0157JG255ab Code: MPELICase No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254atrix: (soil/water) WATERLab Sample ID: JG255ample wt/vol: 1000 (g/mL) ML

Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N)       Date Received: 12/19/90xtraction: (SepF/Cont/Sonc) CONTDate Extracted: 12/21/90oncentrated Extract Volume: 10000 (uL)Date Analyzed: 01/08/91njection Volume: 2.00 (uL)Dilution Factor: 1.00PC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.059	N54
53494-70-5-----	Endrin ketone	0.10	U
7421-36-3-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	0.050	U
11141-16-5-----	Aroclor-1232	0.050	U
53469-21-9-----	Aroclor-1242	0.050	U
12672-29-6-----	Aroclor-1248	0.050	U
11097-69-1-----	Aroclor-1254	0.10	U
11096-82-5-----	Aroclor-1260	0.10	U

00000046

EPA SAMPLE NO.

1A

## VOLATILE ORGANICS ANALYSIS DATA SHEET

JG257

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EW1215204A

Level: (low/med) LOW

Date Received: 12/20/90

Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90

GC Column: DB-624 ID: 0.500 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	39		
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-35-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	4	J	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

recycled paper

ecology and environment

00000047  
EPA SAMPLE NO.

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>	JG257		
Lab Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>		
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-04</u>			
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>EW1215204A</u>			
Level: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>			
Moisture: not dec. _____	Date Analyzed: <u>12/27/90</u>			
GC Column: <u>DB-624</u>	ID: <u>0.500</u> (mm)	Dilution Factor: <u>1.0</u>		
Soil Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)			
Number TICs found: <u>0</u>	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>			
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

00000237

EPA SAMPLE NO.

1B

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JG257

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-04

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215204C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0 (ul)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
108-95-2-----	Phenol	3	J	
111-44-4-----	bis(2-Chloroethyl) Ether	10	U	
95-57-8-----	2-Chlorophenol	10	U	
541-73-1-----	1,3-Dichlorobenzene	10	U	
106-46-7-----	1,4-Dichlorobenzene	10	U	
95-50-1-----	1,2-Dichlorobenzene	10	U	
95-48-7-----	2-Methylphenol	10	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5-----	4-Methylphenol	10	U	
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1-----	Hexachloroethane	10	U	
98-95-3-----	Nitrobenzene	10	U	
78-59-1-----	Isophorone	10	U	
88-75-5-----	2-Nitrophenol	10	U	
105-67-9-----	2,4-Dimethylphenol	10	U	
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U	
120-83-2-----	2,4-Dichlorophenol	10	U	
120-82-1-----	1,2,4-Trichlorobenzene	10	U	
91-20-3-----	Naphthalene	10	U	
106-47-8-----	4-Chloroaniline	10	UJ4	
87-68-3-----	Hexachlorobutadiene	10	U	
59-50-7-----	4-Chloro-3-Methylphenol	10	U	
91-57-6-----	2-Methylnaphthalene	10	U	
77-47-4-----	Hexachlorocyclopentadiene	10	U	
88-06-2-----	2,4,6-Trichlorophenol	10	U	
95-95-4-----	2,4,5-Trichlorophenol	50	U	
91-58-7-----	2-Chloronaphthalene	10	U	
88-74-4-----	2-Nitroaniline	50	U	
131-11-3-----	Dimethyl Phthalate	10	U	
208-96-8-----	Acenaphthylene	10	U	
606-20-2-----	2,6-Dinitrotoluene	10	U	
99-09-2-----	3-Nitroaniline	50	UJ4	
83-32-9-----	Acenaphthene	10	U	

recycled paper

ecology and environment

00000238  
EPA SAMPLE NO.

1C

## SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

JG257

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI Case No.: 15614

SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-04

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215204C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: decanted: (Y/N)

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0 (ul)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
51-28-5-----	2,4-Dinitrophenol	50	U
100-02-7-----	4-Nitrophenol	50	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	50	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	50	U
86-30-6-----	N-Nitrosodiphenylamine (1)	1	uJ,
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	50	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	0.3	J
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

recycled paper

ecology and environment

00000239  
EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG257

Lab Name: MIDPAC ENV LABContract: 68-D0-0157Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-04Sample wt/vol: 1000 (g/mL) MLLab File ID: EL1215204CLevel: (low/med) LOWDate Received: 12/20/90% Moisture: \_\_\_\_\_ decanted: (Y/N)   Date Extracted: 12/21/90Concentrated Extract Volume: 1000 (ul)Date Analyzed: 01/07/91Injection Volume: 2.0 (ul)Dilution Factor: 1.0GPC Cleanup: (Y/N) N pH: \_\_\_\_\_CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/LNumber TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 74672-05-2	PROPANOIC ACID, 2-METHYL-, 1	14.82	5.0	JN
2. 17851-53-5	1,2-BENZENEDICARBOXYLIC ACID	16.70	2.0	JN
3.	UNKNOWN	19.82	2.0	JN
4.	UNKNOWN	24.14	3.0	JN

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG257

Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254

Matrix: (soil/water) WATER Lab Sample ID: JG257A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: 12/19/90

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/21/90

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/24/91

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U J <sub>4</sub>
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U J <sub>4</sub>
72-43-5-----	Methoxychlor	0.051	J
53494-70-5-----	Endrin ketone	0.10	U
7421-36-3-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

00000056

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JG258

Lab Name: MIDPAC ENV LABContract: 68-DO-0157Lab Code: MPELI Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-05Sample wt/vol: 5.0 (g/mL) MLLab File ID: EW1215205ALevel: (low/med) LOWDate Received: 12/20/90

Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm)Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	40	
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-35-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	4	J
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloroproppane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

00000057

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG258

Lab Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>			
Lab Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>		
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-05</u>			
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>EW1215205A</u>			
Level: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>			
Moisture: not dec. _____	Date Analyzed: <u>12/27/90</u>			
C Column: <u>DB-624</u> ID: <u>0.500</u> (mm)	Dilution Factor: <u>1.0</u>			
Oil Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)			
Number TICs found: <u>0</u>	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>			
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

00000262  
EPA SAMPLE NO.

1B

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG258

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-05

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215205C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 01/07/91

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND			
108-95-2-----	Phenol	2	J	
111-44-4-----	bis(2-Chloroethyl) Ether	10	U	
95-57-8-----	2-Chlorophenol	10	U	
541-73-1-----	1,3-Dichlorobenzene	10	U	
106-46-7-----	1,4-Dichlorobenzene	10	U	
95-50-1-----	1,2-Dichlorobenzene	10	U	
95-48-7-----	2-Methylphenol	10	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5-----	4-Methylphenol	10	U	
621-64-7-----	N-Nitroso-Di-n-Propylamine	10	U	
67-72-1-----	Hexachloroethane	10	U	
98-95-3-----	Nitrobenzene	10	U	
78-59-1-----	Isophorone	10	U	
88-75-5-----	2-Nitrophenol	10	U	
105-67-9-----	2,4-Dimethylphenol	10	U	
111-91-1-----	bis(2-Chloroethoxy)Methane	10	U	
120-83-2-----	2,4-Dichlorophenol	10	U	
120-82-1-----	1,2,4-Trichlorobenzene	10	U	
91-20-3-----	Naphthalene	10	U	
106-47-8-----	4-Chloroaniline	10	UJ4	
87-68-3-----	Hexachlorobutadiene	10	U	
59-50-7-----	4-Chloro-3-Methylphenol	10	U	
91-57-6-----	2-Methylnaphthalene	10	U	
77-47-4-----	Hexachlorocyclopentadiene	10	U	
88-06-2-----	2,4,6-Trichlorophenol	10	U	
95-95-4-----	2,4,5-Trichlorophenol	50	U	
91-58-7-----	2-Chloronaphthalene	10	U	
88-74-4-----	2-Nitroaniline	50	U	
131-11-3-----	Dimethyl Phthalate	10	U	
208-96-8-----	Acenaphthylene	10	U	
606-20-2-----	2,6-Dinitrotoluene	10	U	
99-09-2-----	3-Nitroaniline	50	UJ4	
83-32-9-----	Acenaphthene	10	U	

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## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JG258

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-05

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: EL1215205C

Level: (low/med) LOW

Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul)

Date Analyzed: 01/07/91

Injection Volume: 2.0 (ul)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		
51-28-5-----	2,4-Dinitrophenol	50	U
100-02-7-----	4-Nitrophenol	50	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	50	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	50	U
86-30-6-----	N-Nitrosodiphenylamine (1)	1	NI
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	50	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-Butylphthalate	0.4	J
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)Anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	9	J
117-84-0-----	Di-n-Octyl Phthalate	10	U
205-99-2-----	Benzo(b)Fluoranthene	10	U
207-08-9-----	Benzo(k)Fluoranthene	10	U
50-32-8-----	Benzo(a)Pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3-----	Dibenz(a,h)Anthracene	10	U
191-24-2-----	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

recycled paper

ecology and environment

00000264  
EPA SAMPLE NO.

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: MIDPAC ENV LAB Contract: 68-D0-0157 JG258

Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254

Matrix: (soil/water) WATER Lab Sample ID: 9012152-05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: EL1215205C

Level: (low/med) LOW Date Received: 12/20/90

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Extracted: 12/21/90

Concentrated Extract Volume: 1000 (ul) Date Analyzed: 01/07/91

Injection Volume: 2.0(ul) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 74381-40-1	Propanoic Acid, 2-Methyl-,1-	14.82	6.0	JN
2. 17851-53-5	1,2-Benzenedicarboxylic Acid	16.72	3.0	JN
3.	Unknown	19.85	2.0	JN
4.	Unknown	24.15	3.0	JN

00000815

EPA SAMPLE NO.

**1D**  
**PESTICIDE ORGANICS ANALYSIS DATA SHEET**

MIDPAC ENV LAB

Contract: 68-D0-0157

JG258

IMPEL Case No.: 15614

SAS No.: \_\_\_\_\_ SDG No.: JG254

Lab Sample ID: JG258

vol: 1000 (g/mL) ML

**Lab File ID:** \_\_\_\_\_

decanted: (Y/N)

Date Received: 12/19/90

(SepF/Cont/Sonc) CONT

Date Extracted: 12/21/90

ed Extract Volume: 10000 (uL)

Date Analyzed: 01/08/91

Volume: 2.20 (uL)

Dilution Factor:   1.00

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

CAS NO.

#### **COMPOUND**

**CONCENTRATION UNITS:**

9

319-84-6-----alpha-BHC	0.050	U
319-85-7-----beta-BHC	0.050	U
319-86-8-----delta-BHC	0.050	U
58-89-9-----gamma-BHC (Lindane)	0.050	U
76-44-8-----Heptachlor	0.050	U
309-00-2-----Aldrin	0.050	U
1024-57-3-----Heptachlor epoxide	0.050	U
959-98-8-----Endosulfan I	0.050	U
60-57-1-----Dieldrin	0.10	U
72-55-9-----4,4'-DDE	0.10	U
72-20-8-----Endrin	0.10	U
33213-65-9-----Endosulfan II	0.10	U
72-54-8-----4,4'-DDD	0.10	U
1031-07-8-----Endosulfan sulfate	0.10	U
50-29-3-----4,4'-DDT	0.10	U
72-43-5-----Methoxychlor	0.050	U
53494-70-5-----Endrin ketone	0.10	U
7421-36-3-----Endrin aldehyde	0.10	U
5103-71-9-----alpha-Chlordane	0.50	U
5103-74-2-----gamma-Chlordane	0.50	U
8001-35-2-----Toxaphene	0.10	U
12674-11-2-----Aroclor-1016	0.050	U
11104-28-2-----Aroclor-1221	0.050	U
11141-16-5-----Aroclor-1232	0.050	U
53469-21-9-----Aroclor-1242	0.050	U
12672-29-6-----Aroclor-1248	0.050	U
11097-69-1-----Aroclor-1254	0.10	U
11096-82-5-----Aroclor-1260	0.10	U

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00000065

EPA SAMPLE NO.

1A

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG566

Code: MPELI Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-03

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EW1215203A

Level: (low/med) LOW

Date Received: 12/20/90

Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90

Column: DB-624 ID: 0.500 (mm)

Dilution Factor: 1.0

Initial Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3-----	Chloromethane		10	U
74-83-9-----	Bromomethane		10	U
75-01-4-----	Vinyl Chloride		10	U
75-00-3-----	Chloroethane		10	U
75-09-2-----	Methylene Chloride		66	
67-64-1-----	Acetone		10	U
75-15-0-----	Carbon Disulfide		10	U
75-35-4-----	1,1-Dichloroethene		10	U
75-35-3-----	1,1-Dichloroethane		10	U
540-59-0-----	1,2-Dichloroethene (total)		10	U
67-66-3-----	Chloroform		10	U
107-06-2-----	1,2-Dichloroethane		10	U
78-93-3-----	2-Butanone		5	J
71-55-6-----	1,1,1-Trichloroethane		8	J
56-23-5-----	Carbon Tetrachloride		10	U
75-27-4-----	Bromodichloromethane		10	U
78-87-5-----	1,2-Dichloropropane		10	U
10061-01-5-----	cis-1,3-Dichloropropene		10	U
79-01-6-----	Trichloroethene		10	U
124-48-1-----	Dibromochloromethane		10	U
79-00-5-----	1,1,2-Trichloroethane		10	U
71-43-2-----	Benzene		10	U
10061-02-6-----	trans-1,3-Dichloropropene		10	U
75-25-2-----	Bromoform		10	U
108-10-1-----	4-Methyl-2-Pentanone		10	U
591-78-6-----	2-Hexanone		10	U
127-18-4-----	Tetrachloroethene		10	U
79-34-5-----	1,1,2,2-Tetrachloroethane		10	U
108-88-3-----	Toluene		10	U
108-90-7-----	Chlorobenzene		10	U
100-41-4-----	Ethylbenzene		10	U
100-42-5-----	Styrene		10	U
1330-20-7-----	Xylene (total)		10	U

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ecology and environment

Rf  
1/1/91

00000066

EPA SAMPLE NO.

1E

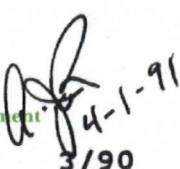
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG566

Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>	
Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-03</u>	
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>EW1215203A</u>	
Rel: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>	
Moisture: not dec. _____	Date Analyzed: <u>12/27/90</u>	
Column: <u>DB-624</u> ID: <u>0.500</u> (mm)	Dilution Factor: <u>1.0</u>	
All Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)	

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



1-1-91

00000077

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>	<u>JG567</u>
Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-06</u>	
Sample wt/vol: <u>5.0 (g/mL) ML</u>	Lab File ID: <u>EW1215206A</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>	
Moisture: not dec. _____	Date Analyzed: <u>12/27/90</u>	
Column: <u>DB-624</u>	ID: <u>0.500 (mm)</u>	Dilution Factor: <u>1.0</u>
1 Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)	

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	Q
74-87-3-----	Chloromethane	47
74-83-9-----	Bromomethane	10
75-01-4-----	Vinyl Chloride	10
75-00-3-----	Chloroethane	10
75-09-2-----	Methylene Chloride	10
67-64-1-----	Acetone	10
75-15-0-----	Carbon Disulfide	10
75-35-4-----	1,1-Dichloroethene	10
75-35-3-----	1,1-Dichloroethane	10
540-59-0-----	1,2-Dichloroethene (total)	10
67-66-3-----	Chloroform	10
107-06-2-----	1,2-Dichloroethane	10
78-93-3-----	2-Butanone	10
71-55-6-----	1,1,1-Trichloroethane	10
56-23-5-----	Carbon Tetrachloride	10
75-27-4-----	Bromodichloromethane	10
78-87-5-----	1,2-Dichloropropane	10
10061-01-5-----	cis-1,3-Dichloropropene	10
79-01-6-----	Trichloroethene	10
124-48-1-----	Dibromochloromethane	10
79-00-5-----	1,1,2-Trichloroethane	10
71-43-2-----	Benzene	10
10061-02-6-----	trans-1,3-Dichloropropene	10
75-25-2-----	Bromoform	10
108-10-1-----	4-Methyl-2-Pentanone	10
591-78-6-----	2-Hexanone	10
127-18-4-----	Tetrachloroethene	10
79-34-5-----	1,1,2,2-Tetrachloroethane	10
108-88-3-----	Toluene	10
108-90-7-----	Chlorobenzene	10
100-41-4-----	Ethylbenzene	10
100-42-5-----	Styrene	10
1330-20-7-----	Xylene (total)	10

recycled paper

ecology and environment

00000078

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>	<u>JG567</u>
Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-06</u>	
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>EW1215206A</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>	
Moisture: not dec. _____	Date Analyzed: <u>12/27/90</u>	
Column: <u>DB-624</u>	Dilution Factor: <u>1.0</u>	
Soil Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)	

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

12-1-90

00000085

EPA SAMPLE NO.

1A

## VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG570

Lab Code: MPELI

Case No.: 15614

SAS No.: \_\_\_\_\_

SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-07

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EW1215207LA

Level: (low/med) LOW

Date Received: 12/20/90

Moisture: not dec. \_\_\_\_\_

Date Analyzed: 12/27/90

GC Column: DB-624 ID: 0.500 (mm)

Dilution Factor: 20

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	200	U
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	3100	
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	200	U
75-35-4-----	1,1-Dichloroethene	280	
75-35-3-----	1,1-Dichloroethane	82	J
540-59-0-----	1,2-Dichloroethene (total)	200	U
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	200	U
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	1900	
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloropropane	200	U
10061-01-5-----	cis-1,3-Dichloropropene	200	U
79-01-6-----	Trichloroethene	99	J
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-Dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	200	U
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Xylene (total)	200	U

recycled paper

00000086

EPA SAMPLE NO.

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: MIDPAC ENV LABContract: 68-D0-0157JG570Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATERLab Sample ID: 9012152-07Sample wt/vol: 5.0 (g/mL) MLLab File ID: EW1215207LALevel: (low/med) LOWDate Received: 12/20/90

% Moisture: not dec. \_\_\_\_\_

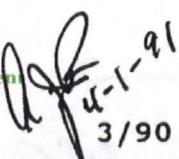
Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm)Dilution Factor: 20

Soil Extract Volume: \_\_\_\_\_ (ul)

Soil Aliquot Volume: \_\_\_\_\_ (ul)

Number TICs found: 0CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====


  
JF u-1-91

00000101

EPA SAMPLE NO.

1A

## VOLATILE ORGANICS ANALYSIS DATA SHEET

JG571

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

Lab Code: MPELI Case No.: 15614

SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-08

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EW1215208A

Level: (low/med) LOW

Date Received: 12/20/90

Moisture: not dec.

Date Analyzed: 12/27/90

GC Column: DB-624 ID: 0.500 (mm)

Dilution Factor: 20

Soil Extract Volume: (ul)

Soil Aliquot Volume: (ul)

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
74-87-3-----	Chloromethane	200	U
74-83-9-----	Bromomethane	200	U
75-01-4-----	Vinyl Chloride	200	U
75-00-3-----	Chloroethane	200	U
75-09-2-----	Methylene Chloride	2900	
67-64-1-----	Acetone	200	U
75-15-0-----	Carbon Disulfide	200	U
75-35-4-----	1,1-Dichloroethene	260	
75-35-3-----	1,1-Dichloroethane	77	J
540-59-0-----	1,2-Dichloroethene (total)	200	U
67-66-3-----	Chloroform	200	U
107-06-2-----	1,2-Dichloroethane	200	U
78-93-3-----	2-Butanone	200	U
71-55-6-----	1,1,1-Trichloroethane	1900	
56-23-5-----	Carbon Tetrachloride	200	U
75-27-4-----	Bromodichloromethane	200	U
78-87-5-----	1,2-Dichloroproppane	200	U
10061-01-5-----	cis-1,3-Dichloropropene	200	U
79-01-6-----	Trichloroethene	120	J
124-48-1-----	Dibromochloromethane	200	U
79-00-5-----	1,1,2-Trichloroethane	200	U
71-43-2-----	Benzene	200	U
10061-02-6-----	trans-1,3-Dichloropropene	200	U
75-25-2-----	Bromoform	200	U
108-10-1-----	4-Methyl-2-Pentanone	200	U
591-78-6-----	2-Hexanone	200	U
127-18-4-----	Tetrachloroethene	200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	200	U
108-88-3-----	Toluene	200	U
108-90-7-----	Chlorobenzene	200	U
100-41-4-----	Ethylbenzene	200	U
100-42-5-----	Styrene	200	U
1330-20-7-----	Xylene (total)	200	U

recycled paper

ecology and environment

00000102  
EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: <u>MIDPAC ENV LAB</u>	Contract: <u>68-D0-0157</u>	JG571		
Lab Code: <u>MPELI</u>	Case No.: <u>15614</u>	SAS No.: _____ SDG No.: <u>JG254</u>		
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9012152-08</u>			
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>EW1215208A</u>			
Level: (low/med) <u>LOW</u>	Date Received: <u>12/20/90</u>			
Moisture: not dec.	Date Analyzed: <u>12/27/90</u>			
GC Column: <u>DB-624</u> ID: <u>0.500</u> (mm)	Dilution Factor: <u>20</u>			
Soil Extract Volume: _____ (ul)	Soil Aliquot Volume: _____ (ul)			
CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>				
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1/91  
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00000117

EPA SAMPLE NO.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: MIDPAC ENV LAB

Contract: 68-D0-0157

JG572

Lab Code: MPELI Case No.: 15614

SAS No.: SDG No.: JG254

Matrix: (soil/water) WATER

Lab Sample ID: 9012152-09

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EW1215209A

Level: (low/med) LOW

Date Received: 12/20/90

Moisture: not dec.

Date Analyzed: 12/27/90

GC Column: DB-624 ID: 0.500 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (ul)

Soil Aliquot Volume: (ul)

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND			
74-87-3-----	Chloromethane	59		
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	4	J	
75-35-4-----	1,1-Dichloroethene	10	U	
75-35-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (total)	10	U	

00000118

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

JG572

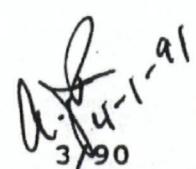
Lab Name: MIDPAC ENV LAB Contract: 68-D0-0157Lab Code: MPELI Case No.: 15614 SAS No.: \_\_\_\_\_ SDG No.: JG254Matrix: (soil/water) WATER Lab Sample ID: 9012152-09Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EW1215209ALevel: (low/med) LOW Date Received: 12/20/90Moisture: not dec. \_\_\_\_\_ Date Analyzed: 12/27/90GC Column: DB-624 ID: 0.500 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (ul) Soil Aliquot Volume: \_\_\_\_\_ (ul)

## CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====



3/90